INFRARED VIEWING DEVICES

Applications

- Photo processing
- Thermal imaging
- Semiconductor inspection
- Laser beam alignment
- Forensics & art restoration
- Optical fiber alignment
- Telecommunications
- Fluorescence

Our infrared viewers are excellent choices for a variety of applications requiring observation of light emitted by IR sources. Such light sources include GaAs IR LEDs and diode-pumped solid state IR lasers. For more information on infrared DPSS lasers, see pages 12 through 15.

Infrared Viewers—

We offer five models of infrared viewing devices.

IRVH Hybrid-Intensified Infrared Viewer—

The IRVH(1700) is a hybrid-intensified CCD camera that features an integrated 4-inch TFT-LCD display and an infrared image converter. The unit is designed for viewing radiation in the 350 to 1700nm spectral region. The IRVH enables recording and digitization of images using a PC and may be hand-held or used with a tripod. The unit operates on one AAA and four AA rechargeable batteries (all included), or users may choose to operate it via an AC power adapter, also included. The IRVH is ideal for microscopy, telecommunications, luminescence, art restoration, and fluorescence applications, as well as for a variety of field applications involving the alignment of infrared beams or optical components in near-IR systems.

Related Products

See pages 13-16 for information on our infrared DPSS lasers.

SPECIFICATIONS	IRVH(1700)	IRVM	IRVE	IRV1(2000) / IRV1(1700)	IRV2(2000) / IRV2(1700) / IRV2(1300)
Spectral Response (nm)	350 - 1700	400 - 1700	400 - 1700	350 - 2000 / 350 - 1700	350 - 2000 / 350 - 1700 / 350 - 1300
System Resolution	300 TV lines	480 TV lines	570 TV lines	40 lp/mm	30 / 60 / 60 / 60 lp/mm
Field of View (degrees)	25 with 1X lens, 12 with 2.5X lens	25	25	30	20 / 38 / 38 / 38 with 1X lens
Lens	1X (F1.4/26mm) or 2.5X (F2/58mm)	F1.1/20mm, c-mount	F1.4/26mm c-mount	F1.0/20mm	1X (F1.4/26mm) or 2.5X (F2/58mm)
Focus (m)	0.15 with 1X lens 0.25 with 2.5X lens	0.15	0.15	.15 to ∞	.15 to ∞
S/N Ratio (dB)	>40	46	48	–	–
Video Output	RCA connector	std. composite	std. composite	–	–
Input Voltage (VDC/mA max.)	12/400	12/350	10-14/–	–	3/20
Battery Type	4 x AA, 1 x AAA	4 x AA	–	2 x LR44	1 x AAA
Battery Life (continuous, hours)	1. 4 (AA), 50 (AAA)	1	–	18 (typical)	35
Temperature Range (°C)	0 - 40	5 - 40	5 - 40	-10 to +40	-10 to +40

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INFRARED VIEWING DEVICES

Accessories (not compatible with all viewers)

- Infrared illuminator
- Infrared filter
- Neutral-density filter
- Microscope adapter
- Iris diaphragm
- Face mask
- AAA battery adapter
- CCD camera option
- C-mount adapter for CCD camera
- 2.5X lens
- 4-inch LCD-TFT monitor

IRVM Infrared Viewer—

The IRVM is a high performance CCD camera that enables viewing and recording of radiation in the 400 to 1700nm spectral range. The IRVM features a built-in 4-inch TFT-LCD monitor for digital viewing of images. Users may operate the device via adapter (included) or four AA rechargeable batteries (also included). The unit may be hand-held or used with a tripod. Applications include night vision, forensics, telecommunications installation, optical components testing, and coupling alignment.

IRVE Infrared CCD Camera—

Our IRVE is a compact CCD camera designed for viewing, registering, and recording radiation in the 400 to 1700nm spectral range. The device incorporates a highly sensitive, low noise silicon CCD sensor with increased sensitivity in near-infrared light regions. The IRVE does not include a TFT-LCD display, so users must supply a monitor for image viewing. Applications include infrared microscopy, infrared luminescence (by ultraviolet stimulation), fluorescence, and art restoration.

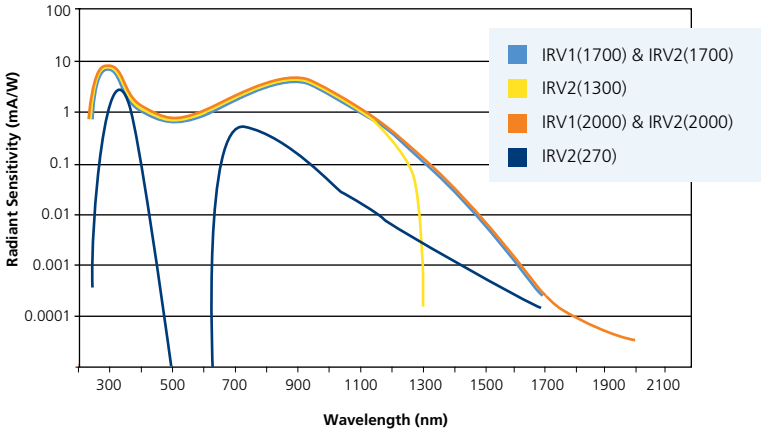
IRV1 Infrared Viewer—

Our IRV1 infrared viewers are available in two versions: one with a spectral response that extends from 350 to 2000nm and one with a 350 to 1700nm spectral response. These miniature devices, which fit comfortably in the palm of your hand, are ideal for applications involving the alignment of infrared beams or optical fibers in a near-IR system. A facemask is available for those requiring hands-free operation. Users may also mount the viewers on a post via the 1/4-20 internal threads, or they may use them as hand-held devices.

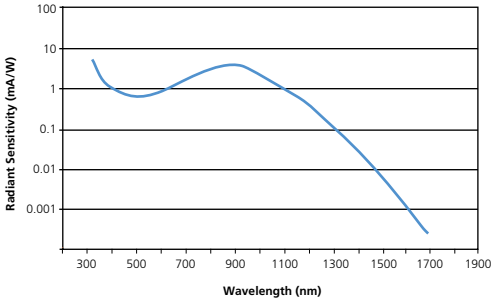
IRV2 Infrared Viewers—

Our IRV2 units are hand-held viewers designed for observing radiation in the 350 to 2000nm, 350 to 1700nm, 350 to 1300nm, or even 270 to 1700nm spectral range. These devices may be post-mounted using their 1/4-20 internal threads or attached to a facemask for hands-free operation.

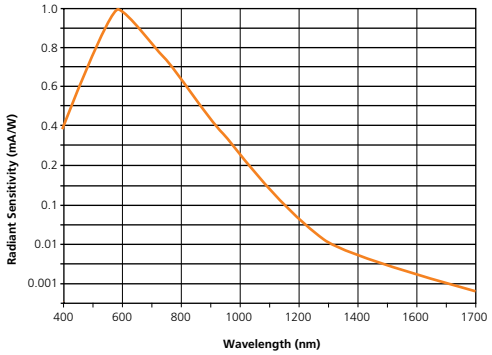
IRV1 & IRV2 Typical Spectral Response:



IRVH Typical Spectral Response:



IRVM & IRVE Typical Spectral Response:



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